2018 Community Health Assessment

New Hanover County
North Carolina









An electronic version of this report is available on the New Hanover County Health Department website: https://health.nhcgov.com/about-us/reports/



Dear Family, Friends and Neighbors,

For the past last 140 years, New Hanover County Public Health has led the charge to promote health, prevent disease and protect our environment. It would be immeasurable to calculate the difference that public health has made in the quality of life of New Hanover County residents and visitors over that time. The one constant has been our determination to ensure excellent health; a common denominator that can create a vibrant and prosperous community.

This Community Health Assessment (CHA) is presented to you as a living document used for identification and prioritization of significant health

needs in New Hanover County. Our goal is to offer a meaningful understanding from the identified set of primary and secondary data that will continue to enhance the quality of life in our community.

Our CHA includes information about the current health of the community and the resources available to improve lives. It will be a living document that will address not only the individual risk factors that create vulnerability to disease but the social determinants such as housing, food insecurity and access to care that create discrepancies from the lack of equity in our population. We know these and other determinants have as much or more impact towards a populations health than ever before. The foundation of Public health has and will continue to be the continued understanding for the trends in the community's health, building partnerships for the wellbeing of our population and ensuring that those partners are working together to become part of the capacity to make good health happen.

As you read through our CHA, I invite you to be part of the team that addresses the ever-present health needs in our community. I believe everyone can play an active role in the betterment of their community and create an environment supportive for prosperity. As, director for public health in New Hanover County I ask you to join me in tackling the health and socioeconomic disparities that impede our community's health. Together we can make a difference.

Sincerely,

Phillip E. Tarte

Phillip E. Tarte, MHA New Hanover County Public Health Director

TABLE OF CONTENTS

Chapter1: Introduction & Background	1
Chapter 2: New Hanover County Description	2
Snapshot of New Hanover County	2
Chapter 3: Primary Health Data Collection & Analysis	5
CHA Survey Results	5
Chapter 4: Secondary Data Analysis	9
Social Determinants of Health	14
Chapter 5: Community Concerns & Priorities	19
Prioritization Session	19
Next Steps	19
Chapter 6: Prevention & Health Promotion	20
Chronic Disease	20
Drug Misuse	21
Environmental Health Exposure	24
References	25

Within Document

Appendix A – Community Health Survey

Appendix B – New Hanover County Public Health Strategic Plan 2018-2023

CHAPTER 1: INTRODUCTION & BACKGROUND

The community health assessment (CHA) is an analysis of the health status of the community in context with the community's economic, social and environmental climate. This report will be an important resource for the community to improve the health and well-being of the people in New Hanover County. The purpose of the CHA is to identify factors that affect the health of a population and determine the availability of resources within the community to adequately address these factors. Through collaborative efforts forged among community leaders, public health agencies, businesses and hospitals, the community can begin to answer key questions such as (a) "What are our problems?" (b) "What factors contribute to these problems?", and (c) "What resources are available in the community to address these problems?".

In a community based assessment, as is promoted in the North Carolina CHA, community members take the lead role in forming partnerships, gathering health related data, determining priority health issues, identifying resources, and planning community health programs. In this framework, the assessment process starts with the people who live in the community. The community has the primary responsibility for determining the focus of the assessment activities at every level, including collection and interpretation of data, evaluation of health resources, identification of health problems, and development of strategies for addressing these problems. In this view, the CHA is done by the community rather than simply an assessment conducted on a community.

CHAPTER 2: NEW HANOVER COUNTY DESCRIPTION

Located in southeastern North Carolina and Established in 1729, New Hanover was formed from Craven County, one of three original counties in North Carolina. New Hanover County is the second smallest and one of the most densely populated counties in the State. The County's land area totals approximately 220 square miles; of this total, over 21 square miles consist of water and wetlands. The current population of New Hanover County is approximately 232,274; a 14.6 percent increase over the 2010 U.S. Census of 202,667. ¹

New Hanover County was named in honor of English King George I, who also ruled the Kingdom of Hanover, Germany. The English royal family was called the House of Hanover. For over 250 years, the New Hanover County seat has been the port city of Wilmington located along the Cape Fear River. New Hanover, a coastal county in southeastern North Carolina, is home to four incorporated municipalities: Wilmington, Carolina Beach, Kure Beach, and Wrightsville Beach. The County's beaches provide miles of unspoiled natural beauty and are the area's most popular tourist attractions. The surrounding terrain is low lying, with an average elevation of less than 40 feet. The highest elevation is approximately 75 feet above sea level. The city's riverbanks boast a major container seaport, a charming historical district, Battleship North Carolina, Gothic churches and riverfront shops. To the south lie majestic plantations, the North Carolina Aquarium, Fort Fisher and miles of unspoiled beaches.

Although Wilmington is the largest city in southeastern North Carolina, it retains a small town atmosphere. Visitors are treated hospitably and immediately sense the strong community pride. Wilmington is the cultural, medical, educational and economic center for the southeastern region of the state. The city is rich in historical significance and in the 20th century, the city's economy shifted from river commerce to the railroad. Its inviting business climate has attracted giants like G.E., DuPont, Corning, PPD, Verizon and a major film studio, in addition to smaller, high-tech firms and corporations. Wilmington is known for historic preservation, its close proximity to area beaches and annual events, such as the North Carolina Azalea Festival and Riverfest. All of this adds to the pleasant lifestyle that growing numbers are enjoying in New Hanover County.

Snapshot of New Hanover County

From 2010 to 2018, New Hanover County has seen an increase in population of about 15 percent while North Carolina only saw an increase of about 9 percent. New Hanover County has a population of 232,274 people. When broken down by ages, New Hanover County has a higher percentage of 65 and older residents than North Carolina (17.7% compared to 16.3%). ¹

New Hanover County has a higher percentage of residents 25 and older who are high school graduates (92.9% compared to 87.4%) and a higher percentage of those 25 and older who have a bachelor's degree or higher (39.3% compared to 30.5%) compared to the state. 1

In 2018, New Hanover County and North Carolina shared about the same percentage of persons living in poverty (15.3% compared to 14%). ¹

From 2014-2018, the median value of owner-occupied housing units in New Hanover County was \$233,700 compared to North Carolina average of \$165,900. In 2018, the median household income for New Hanover County of \$52,716 was slightly above the states of \$52,413.1

People QuickFacts 2018 ¹	New Hanover County	North Carolina
Estimated Population, 2018	232,274	10,383,620
Population, 2010	202,667	9,535,483
Population, percent change, 2010 to 2018	14.6%	8.9%
Population by Age, Gender, Race		
Persons under 5 years	4.9%	5.9%
Persons under 18 years	18.4%	22.2%
Persons 65 years and over	17.7%	16.3%
Female persons	52.3%	51.4%
Male persons	47.7%	48.6%
White persons	81.9%	70.6%
African American persons	13.7%	22.2%
American Indian and Alaska Native persons	0.6%	1.6%
Asian persons	1.6%	3.2%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%
Persons reporting two or more races	2.1%	2.3%
Persons of Hispanic or Latino origin	5.6%	9.6%
White persons not Hispanic	77.4%	62.8%
Education and Services (2014-2018)		
High school graduates (age 25+)	92.9%	87.4%
Bachelor's degree or higher (age 25+)	39.3%	30.5%
Veterans, 2014-2018	15,345	667,696
Health		
With a disability, under age 65, percent, 2014-2018	9%	9.5%
Persons without insurance, under age 65 years, percent	11.7%	12.7%
Household and Income		
Language other than English spoken at home (age 5+)	6.4%	11.6%
Foreign born persons, 2014-2018	5.1%	7.9%
Living in same house 1 year+, 2014-2018	82.2%	84.8%
Housing units (2018)	113,215	4,684,876
Mean travel time to work (age 16+), 2014-2018	20.2 minutes	24.5 minutes
Households, 2014-2018	93,636	3,918,597
Owner-occupied housing unit rate, 2014-2018	57.2%	65.0%
Persons per household, 2014-2018	2.32	2.52
Persons in poverty	15.3%	14.0%
Median value of owner-occupied housing units, 2014-2018	\$233,700	\$165,900
Per capita money income in past 12 months (in 2018 dollars) 2014-2018	\$32,629	\$29,456
Median household income (in 2018 dollars), 2014-2018	\$52,716	\$52,413

In 2017, there were 7,545 employer establishments and 24,939 firms in New Hanover County. A total of 1,918 building permits were reported in New Hanover County.

Business QuickFacts ¹	New Hanover County	North Carolina
Total employer establishments, 2017	7,545	233,363
Total employment, 2017	99,662	3,774,377
Total annual payroll, 2017 (\$1,000)	4,198,494	175,695,531
Total employment, percent change, 2016-2017	4.0%	-0.5%
Total nonemployer establishments, 2017	19,879	760,638
All firms, 2012	24,939	805,985
Men owned firms, 2012	13,879	435,677
Women-owned firms, 2012	8,044	287,058
Minority-owned firms, 2012	2,873	183,380
Nonminority-owned firms, 2012	21,115	603,182
Veteran-owned firm, 2012	2,542	86,571
Nonveteran-owned firms, 2012	20,861	684,743
Manufacturers' shipments, 2012 (\$1000)	2,449,546	202,344,646
Merchant wholesaler sales, 2012 (\$1000)	1,189,386,	105,275,586
Retail sales, 2012 (\$1000)	3,871,707	120,691,007
Retail sales per capita, 2012	\$18,504	\$12,376
Accommodation/food services sales, 2012 (\$1000)	623,342	18,622,258
Building Permits, 2018	1,918	71,691
Geography QuickFacts	New Hanover County	North Carolina
Population per square mile, 2010	1,058.1	196.1
Land area in square miles, 2010	191.53	48,617.91
FIPS Code	37129	37

CHAPTER 3: PRIMARY HEALTH DATA COLLECTION & ANALYSIS

The 2018 New Hanover County (NHC) Community Survey was led by the department of Public Health, in collaboration with the University of North Carolina Wilmington School of Nursing and other stakeholders representing hospital/healthcare, mental health, education, local government, business and nonprofit sectors. The survey (see Appendix A) was launched in the fall of 2018; however, community outreach and survey completion were interrupted by Hurricane Florence, which made landfall in Wrightsville Beach, in September 2018. A second community outreach effort was made in the spring of 2019 while the community continued to recover from the hurricane. Despite this second outreach effort, the survey response rate remained low with less than 1% of the county's population completing the survey (n=436).

Of the 436 survey respondents, 47% were Female, 9% identified at LGBTQ+, 64% were age 45 or older, 78% were Caucasian, 97% were English- speaking, 52% were Employed, 42% were College graduates and 56% had a total household income of less than \$50,000.

In addition to NHC's Community Survey, a focused community assessment, sponsored by New Hanover Regional Medical Center, was also conducted in 2018, in the Northside community of New Hanover County. The Northside community, a low-income minority community, has approximately 3,900 residents, the majority of whom are African American (68%). There were 200 completed surveys, representing 5% of Northside's population. Results from select questions appearing in both the NHC survey and the Northside Assessment will be highlighted.

Community residents completing the NHC Community Survey, lived in the following areas of the county:

Respondents	Zip Code (% of County Population)	New Hanover County Cities
18%	28403 (18%)	Wilmington, Seagate, Wrightsville Beach
17%	28412 (18%)	Wilmington, Silver Lake, Sea Breeze, Myrtle Grove, Masonboro
16%	28401 (11%)	Wilmington, Wrightsboro, Hightsville
12%	28405 (14%)	Wilmington, Kings Grant, Wrightsboro, Ogden, Murraysville, Hightsville, Wrightsville Beach
10%	28409 (15%)	Myrtle Grove, Masonboro, Seagate, Wilmington, Sea Breeze, Silver Lake
12%	28411 (15%)	Murraysville, Kirkland, Odgen, Bayshore, Kings Grant, Wilmington

^{*}Low percentage of respondents lived in 28404 (<0.5%), 28428-Carolina Beach (<1.5%), 28429-Castle Hayne (<3%), 28449-Kure Beach (<0.5%), 28480-Wrightsville Beach (<1%)

CHA Survey Results

Health and Quality of Life

Overall, the majority of respondents (74%) rated their health as good, very good, or excellent with 85% of respondents indicating that they were very confident or somewhat confident in managing most of

their current health problems. Similar results were found in the Northside Assessment where 82% of respondents indicated they were very confident or somewhat confident they control and manage most of their health problems.² Additionally, NHC Community Survey respondents indicated they were often or always able to adapt to changes when they occur (74%) with the majority also indicating they were often or always able to bounce back after illness, injury, or other hardship (80%).

The majority of NHC survey respondents (88%) indicated they would like to improve their health, selecting "Change unhealthy habits such as diet, exercise, smoking (70%)", "Learn more about healthy living and/or manage my disease or condition (30%), "Access to healthy foods (22%)" and "Access to primary care providers (19%)" as the top four ways they would like to improve their health. In the Northside community, 96% of respondents indicated they "strongly agree"/ "agree" they would like to improve their health, with a majority (67%) interested in learning how to cook healthy meals.²

The top five health issues of concern in New Hanover County, identified by respondents, are:

- Drug Misuse (36%)
- Chronic Disease, including cholesterol/blood pressure/diabetes/stroke (22%).
- Metal Health (6.82%)
- Environmental Health Exposure (6.82%)
- Obesity (4.8%)

The top five issues that respondents identified as most negatively affecting quality of life in New Hanover County are:

- Alcohol, drugs or medication misuse and abuse (64%)
- Lack of affordable housing (33%)
- Gang involvement (22%)
- Homelessness (20%)
- Low income/poverty (20%)

Note-1: The question had respondents identifying the top three issues by selecting from a list of 25 options; respondents could only select three; the top five listed above will not add to 100%.

Note-2: These top five issues differ from the problems identified in the 2015 NHC Community Survey when respondents indicated violent crimes (38%), traffic congestion (37%), and drug/alcohol abuse (29%) as the problems most significantly impacting quality of life.

Note-3: While the Northside Assessment did not ask respondents to identify the issues most negatively affecting quality of life, 57% of respondents rated their quality of life in the community as fair or poor.²

The most needed health screenings or education/information services, according to respondents, are

- Mental Health (including depression/anxiety) (71%)
- Cholesterol/Blood Pressure/Diabetes/Stroke (53%)
- Substance Misuse (48%)
- Addiction Recovery (40%)
- Cancer (37%)
- Nutrition/Healthy Eating (28%)
- HIV/Sexually Transmitted Diseases (25%)
- Cognitive Disorders (including Dementia, Alzheimer's) (22%)

Note-1: the question had respondents identifying the top five most needed services from a list of 24 options; respondents could only select five; the eight services listed above will not add to 100%.

Personal Safety

The NHC Community Survey included three questions about personal safety. Eighty percent (80%) of respondents indicated they felt physically and emotionally safe in their community; A high majority of NHC Community Survey respondents indicated they did not experience emotional abuse by their partner or ex-partner (87%) or physical abuse by someone (96%), within the past 12-months.

- Almost 47% of respondents indicated that violence in their community is a concern for them.
 This is compared to results from the Northside Assessment where 72% of respondents indicated that violence is a concern in their community.²
- Nineteen percent (19%) disagreed/strongly disagreed that the community is a safe place to be physically active. Forty-four percent (44%) of Northside Assessment respondents "strongly disagreed"/ "disagreed" with the statement.²

Social Determinants of Health

New Hanover County ranked 30th (out of 100 counties) on social and economic factors.³ Ninety-three percent of persons' age 25 years+ are high school graduates (compared to NC, 87%) and 39% having a Bachelor's degree or higher (compared to NC, 30%).¹ New Hanover County has a 5.3% unemployment rate (compared to NC, 5.7%)³ with 15.3% of persons living in poverty (compared to NC, 14%)¹ and 22% of children living in poverty (compared to NC, 23%).³ Twelve percent of persons under 65 years are without health insurance.¹

The NHC Community Survey included six social determinants of health questions which addressed food, housing, and transportation insecurities. The majority of respondents indicated they were not worried that they would run out of food before receiving money to buy more (75%) nor did they run out of food and were unable to buy more (79%). Eighty-eight percent of respondents indicated they had housing and 85% of respondents were not worried about losing their housing. The majority of respondents (87%) were not adversely impacted by lack of reliable or affordable transportation nor were they unable to get utilities when needed (93%).

- Survey responses indicated that the majority of respondents were not experiencing food, housing, or transportation insecurity.
- Compare the above statement with Northside Assessment findings: sixty-four percent (64%) of respondents indicated it is "very hard" or "somewhat hard" "to pay for food, housing, medical care, and heating"; and 24% answered "Yes" when asked "In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?".²

Social Connectedness

The NHC Community Survey included six questions about the number of connections respondents have with relatives and friends. The majority of respondents indicated "a connectedness" to 3-4, or more, people. See Appendix A for social connectedness survey questions and results.

Access to Care

Access to care questions focused primarily on insurance coverage and service location. Survey respondents had a list of options from which they could select all that apply. Coverage by an employer/workplace private health insurance (42%), Medicare or Medicare supplement plan (35%), and Medicaid (14%) were the top selections.

Respondents most often seek care, when they are sick, at the doctor's office (62%) with some going to urgent care centers (15%). The majority of respondents (88%) indicated that they did not go to the emergency room for non-emergencies, within the past 12-months. Eleven percent (11%) of Northside

Assessment respondents indicated they go to the emergency room when they are sick, and 59% of respondents indicated "there was a time in the past 12 months when they or anyone they take care of needed to see a doctor but did not because of cost".²

The majority of NHC Community Survey respondents seek dental care at a private dentist office (80%) and vision care at a private doctor's office (83%). The majority of respondents reported they did not have problems getting a prescription filled (85%).

The top three choices for where respondents would go, or direct someone to go, for mental health help are private counselors or therapists (53%), the doctor (38%), and family/friends (32%). For drugs/alcohol misuse help or services, they would go to support groups (49%), private counselors or therapists (40%), the doctor (39%), and the crisis hotline (29%).

Emergency Preparedness

The main ways respondents get information from authorities in a large-scale disaster or emergency are television (82%), emergency alerts by text (64%), radio (51%), and telephone/smartphone (56%).

Note: the question had respondents "check all that apply" when identifying ways of getting information, from a list of 15 options; the top four listed above will not add to 100%.

The majority of respondents indicated they would evacuate if asked to do so (38%) and would go to friends/family/second home outside the area (56%). Thirty-nine percent (39%) of respondents indicated they do not have an emergency plan and/or basic emergency supply kit.

CHAPTER 4: SECONDARY DATA ANAYLSIS

Secondary data is included to provide a more comprehensive perspective of a county's health. New Hanover County rates have been compared to other "peer" counties who have similar demographics, poverty estimates, percentage of population living below the poverty line, age (less than 18 years, 65 years or older).

Demographics ³				
	North Carolina	New Hanover County, NC	Union County, NC	Gaston County, NC
Populations	10,042,802	220,358	222,742	231,442
% below 18 years of age	22.8%	19.2%	28.0%	22.9%
% 65 and older	15.1%	16.2%	11.6%	15.4%
% Non-Hispanic African American	21.4%	13.9%	11.7%	15.9%
% American Indian and Alaskan Native	1.6%	0.6%	0.6%	0.6%
% Asian	2.8%	1.6%	2.5%	1.5%
% Native Hawaiian/Other Pacific Islander	0.1%	0.1%	0.1%	0.1%
% Hispanic	9.1%	5.5%	11.0%	6.6%
% Non-Hispanic Islander	63.8%	76.9%	73.0%	73.9%
% Not Proficient in English	3%	2%	3%	2%
% Females	51.3%	52.0%	50.6%	51.5%

The Robert Wood Johnson Foundation County Health Ranking reports provides a summary of how health is impacted by where we live, learn, work and play. These reports provide a wealth of data that can be utilized to address the social determinants of health and bring about positive change in communities. The chart below contains 2017 County Health Rankings for New Hanover County and its peer counties.³

	North Carolina	New Hanover County, NC	Union County, NC	Gaston County, NC
Health Outcomes*		11	3	71
Length of Life		12	6	73
Premature Death	7,200	6,300	5,600	8,900
Premature Age-Adjusted Mortality	360	330	290	450
Child Mortality	60	40	40	60
Infant Mortality	8	5	6	9
Quality of Life		12	4	62
Poor or Fair Health	18%	15%	14%	19%

	North Carolina	New Hanover County, NC	Union County, NC	Gaston County, NC
Poor Physical Health Days	4.0	3.8	3.5	4.3
Poor Mental Health Days	3.7	3.7	3.3	3.9
Low Birthweight	9%	8%	8%	9%
Frequent Physical Distress	12%	12%	10%	13%
Frequent Mental Distress	12%	12%	10%	12%
Diabetes Prevalence	11%	8%	10%	14%
HIV Prevalence (13 years of age or older per 100,000 population)	326	329	113	303
Health Factors**		13	3	61
Health Behaviors		23	8	72
Adult Smoking	19%	17%	16%	19%
Adult Obesity	30%	25%	27%	33%
Food Environment Index	6.8	6.6	8.3	6.4
Physical Inactivity	24%	20%	19%	30%
Access to Exercise Opportunities	75%	86%	68%	78%
Excessive Drinking	15%	20%	18%	15%
Alcohol-Impaired Driving Deaths	32%	31%	30%	31%
Sexually Transmitted Deaths	478.7	425.8	269.8	501.4
Teen Births	36	22	24	44
Food Insecurity	18%	17%	11%	16%
Limited Access to Health Foods	7%	8%	4%	11%
Drug Overdose Deaths	14	21	11	22
Motor Vehicle Crash Deaths	14	10	10	13
Insufficient Sleep	32%	31%	31%	36%
Clinical Care		4	15	36
Uninsured	15%	15%	13%	16%
Uninsured Adults	19%	17%	17%	20%
Uninsured Children	6%	5%	6%	5%
Primary Care Physicians (Ratio of population: primary care physicians	1,410:1	1,110:1	1,680:1	1,510:1
Dentist	1,890:1	1,390:1	3,910:1	1,980:1

	North Carolina	New Hanover County, NC	Union County, NC	Gaston County, NC
Mental Health Provider	490:1	290:1	910:1	530:1
Other Primary Care Providers	1,068:1	633:1	2,184:1	1,301:1
Preventable Hospital Stays	49	36	43	48
Percentage of Diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring.	89%	91%	92%	89%
Mammography Screening	68%	74%	67%	65%
Health Care Costs	\$9,069	\$9,156	\$8,868	\$10,018
Social & Economic Factors		30	1	43
High School Graduation	86%	82%	93%	86%
Some College	65%	75%	67%	60%
Unemployment	5.7%	5.3%	4.8%	6.0%
Children in Poverty	23%	22%	13%	25%
Income Inequality	4.8	5.0	4.1	4.7
Children in Single Parent Households	36%	38%	22%	38%
Number of membership associations per 10,000 population	11.5	10.1	7.8	14.7
Violent Crime	342	428	211	384
Injury Deaths	65	67	42	77
Disconnected Youth	15%	10%	12%	20%
Median Household Income	\$47,900	\$52,500	\$71,700	\$45,000
Children Eligible for Free or Reduced Price Lunch	57%	52%	34%	61%
Residential Segregation— Black/White	50	45	36	46
Residential Segregation—Non- White/White	45	39	31	39
Homicides	6	5	3	5
Firearm Fatalities	12	11	8	13
Physical Environment		7	56	100
Average daily density of fine particulate matter in μg/ m³	9.1	8.0	10.4	10.3

	North Carolina	New Hanover County, NC	Union County, NC	Gaston County, NC
Drinking Water Violations (FY 13-14 data used for this measure)		No	No	Yes
Severe Housing Problems	17%	20%	13%	17%
Driving Alone to Work	81%	78%	82%	85%
Long Commute (>30 minutes)—Driving Alone	31%	17%	47%	35%
Demographics				
Populations	10,042,802	220,358	222,742	231,442
% below 18 years of age	22.8%	19.2%	28.0%	22.9%
% 65 and older	15.1%	16.2%	11.6%	15.4%
% Non-Hispanic African American	21.4%	13.9%	11.7%	15.9%
% American Indian and Alaskan Native	1.6%	0.6%	0.6%	0.6%
% Asian	2.8%	1.6%	2.5%	1.5%
% Native Hawaiian/Other Pacific Islander	0.1%	0.1%	0.1%	0.1%
% Hispanic	9.1%	5.5%	11.0%	6.6%
% Non-Hispanic Islander	63.8%	76.9%	73.0%	73.9%
% Not Proficient in English	3%	2%	3%	2%
% Females	51.3%	52.0%	50.6%	51.5%
% Rural	33.9%	2.2%	27.3%	19.6%

^{*}Health Outcomes represent how healthy a county is right now. They reflect the physical and mental well-being of residents within a community through measures representing not only the length of life but quality of life as well. ³

**Health Factors represent those things we can modify to improve the length and quality

of life for residents. They are predictors of how healthy our communities can be in the future.³

The tables below provide a visual display of important health indicators for New Hanover County.

Health Indicators ⁴	Compared to NC	Trend Direction
Live Births	Lower	•
Teen Births	Lower	•
Repeat Teen Births	Higher	•
Infant/Child Death	Lower	•
CVD/HD/Diabetes	Lower	•
Stroke	Higher	•
Colorectal/Prostrate CA	Lower	•
Trachea, Bronchus, Lung CA	Higher	•
Breast CA	Higher	•
Unintentional Motor Vehicle Injury	Lower	•
Unintentional Injury	Higher	•
Homicide	Higher	•
Suicide	Higher	•
Primary Care Physicians, Dentists Registered Nurses, Physician Assistants	Higher	•

Rankings 2017 ⁴			
Leading Causes of Death	New Hanover County	North Carolina	
Cancer	1	1	
Heart Disease	2	2	
Cerebrovascular Diseases (Stroke)	3	5	
All Other Accidental Injuries	4	3	
Chronic Lower Respiratory Diseases	5	4	

*Top 3 causes of death in New Hanover County remained the same, 2016 to 2018, although order has changed.

Social Determinants of Health

- Unemployment: 5.3% of the work force during 2014-2018, was unemployed.³
- Household Income: Median household income was \$52,716 during 2014-2018. 1
- Poverty: In 2014-2018, 15% of adults were in poverty and 22% of children. Poverty guidelines define poverty as making less than \$25,100 annually for a family of four. 1
- SNAP Benefits: 10,175 families received SNAP benefits during 2014-2018. 1
- High School Diploma: 93% of New Hanover County citizens had a high school diploma during 2014-2018. 1

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as "place." In addition to the more material attributes of "place," the patterns of social engagement and sense of security and well-being are also affected by where people live. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples

of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins.

Crime & Violence

According to the North Carolina Department of Justice, from 2017-2018, the crime rates decreased in North Carolina and in New Hanover County. New Hanover County is just below the state Crime rate but continues to remain above the state rate for Violent Crime and Property. The City of Wilmington saw a 14%

North Carolina Department of Justice Crime Index Per 100,000 persons ⁵						
	2017 NC 2017 NHC 2018 NC 2018 NHC					
Crime Index Rate (1)	3,068.20	3,368.60	2,763.20	2,752.90		
Violet Crime Rate (2)	384.8	435.1	356.6	419.1		
Property Crime Rate (3)	2,683.40	2,933.50	2,406.60	2,333.80		

(1) Total # of murders, rapes, robberies, aggravated assaults, burglaries, larcenies, and motor vehicle thefts. (2) Includes murder, rape, robbery, and aggravated assault. (3) Consists of burglary, larceny, and motor vehicle theft.

decrease during 2017-2018 in its total crime index (from 5,126 to 4,421).5

Education

During 2014-2018, 92.9% of New Hanover County residents had at least a high school diploma, which is higher than the state percentage of 87.4%.¹

New Hanover County Public Schools is the main source of elementary and secondary education in the county, with two Pre-K Centers, 25 elementary schools, 8 middle schools, 8 high schools and 2 alternative schools. There are 20 private schools in New Hanover. Also, many colleges are located in the Wilmington region, including The University of North Carolina at Wilmington (UNCW), Cape Fear Community College, Miller-Motte Technical College, University of Mount Olive, and The College of Wilmington. All of these offer continuing education programs and provide a great outlet for a successful future.

Drop Out Rate: According to the North Carolina Department of Public Instruction, New Hanover County's dropout rate for 2017-2018 amongst grades 7-13th was 0.91 which was lower compared to the

1.53 rate from five years' prior 2012-2013. The dropout rate in New Hanover County has downward trend since 2014-15 and is lower than the state rate in current reports.

New Hanover County Schools (NHCS) Grade 7-13, Dropout Counts and Rates ⁶							
Year	NHCS # of Students	NHCS Rate	North Carolina Rate				
2012-13	177	1.53	1.64				
2013-14	224	1.91	1.52				
2014-15	231	1.92	1.61				
2015-16	137	1.13	1.55				
2016-17	126	1.04	1.59				
2017-18	112	0.91	1.51				

Grade 13 refers to an early-college program that allows eligible students to take high school courses toward graduation while taking tuition-free credit classes that would go toward a degree.

Transportation

The transportation industry in New Hanover County consists of local and international travel through the regional airport, bus and taxi services, a North Carolina State Port and a well-developed highway and rail system.

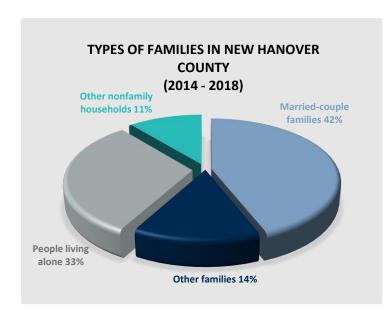
Wilmington International Airport: Wilmington International Airport (ILM) is one of the most hospitable and progressive international airports in the Carolinas. In 2017 the airport served more than 836,000 passengers.⁷

North Carolina State Port in Wilmington: Wilmington is home to one of the two major state ports in North Carolina. Located on the east bank of the Cape Fear River, the port in Wilmington offers facilities to handle containerized, bulk and break bulk cargos. The Port of Wilmington is one of the few South Atlantic ports with readily available berths and storage areas for containers and cargo.

Buses and Taxis: The Cape Fear Public Transportation Authority provides a variety of local public transportation options to the residents of the Cape Fear region, including the Wave Transit and Seahawk Shuttle buses on fixed routes, local shuttles and a free downtown trolley. All have schedules designed for convenience and easy accessibility. The Wave Transit also provides Para transit services for disabled individuals. A trip planner is available at www.wavetransit.com. Several taxicab companies provide service to the Greater Wilmington Area.

Households and Families

The American Community Survey found that from 2014-2018, there were 93,636 households in New Hanover County. The average household size was 2.3 people. Families made up 57 percent of the households in New Hanover County. This figure includes both married-couple families (42%) and other families (14%). Nonfamily households made up 43 percent of all households in New Hanover County. Most of the nonfamily households were people living alone, but some were composed of people living in households in which no one was related to the householder.¹



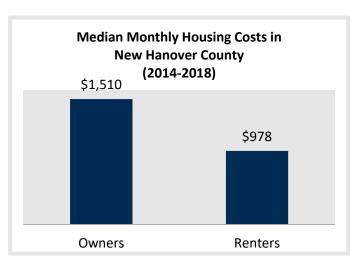
Housing Characteristics: In 2014-2018, New Hanover County had a total of 109,244 housing units, 14 percent of which were vacant. Of the total housing units, 61 percent were in single-unit structures, 28 percent were in multi-unit structures, and four percent were mobile homes. Twenty-six percent of the housing units were built since 2000.¹

Occupied Housing Unit Characteristics: In 2014-2018, New Hanover County had 93,636 occupied housing units; 53,572 (57%) were owner occupied and 40,064 (43%) were renter occupied. Four percent of the households did not have telephone service and six percent of the households

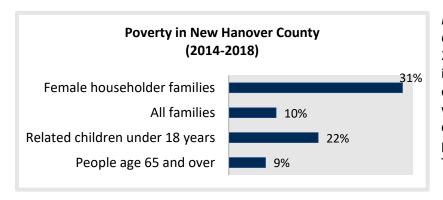
did not have access to a car, truck, or van for private use. Multi vehicle households were not rare. Fortyone percent had two vehicles and another 18 percent had three or more.¹

Housing Costs: The median monthly housing costs for mortgaged owners was \$1,510, \$519 for non-mortgaged owners, and \$978 for renters. Thirty-three percent of owners with mortgages, 15 percent of owners without mortgages, and 54 percent of renters in New Hanover County spent 30 percent or more of household income on housing.¹

Income: The median income of households in New Hanover County was \$52,716. Eighty-one percent of the households received earnings and 19 percent received retirement income other than Social Security. Thirty-two percent of



the households received Social Security. The average income from Social Security was \$19,863. These income sources are not mutually exclusive, that is, some households received income from more than one source.¹



Poverty and Participation in Government Programs: In 2014-2018, 15 percent of people were in poverty. Twenty-two percent of related children under 18 were below the poverty level, compared with nine percent of people 65 years old and over. Ten percent of all families and 31

percent of families with a female householder and no husband present, had incomes below the poverty level.¹

Food Security

The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life for all members of a given household. While hunger and food insecurity are closely intertwined, hunger refers to physical discomfort, while food insecurity refers to limited resources to purchase enough food for the household. County Health Rankings indicate that 8% of New Hanover County residents have limited access to healthy food and 17% are food insecure.³ New Hanover County rate are comparable to the state average.

Employment

Data from the American Community Survey found that among the most common occupations in New Hanover County from 2014-2018, 23 percent were educational services, health care and social assistance; 14 percent were arts, entertainment and recreation, and accommodation and food services; 13 percent were retail trade; 12 percent were professional, scientific and management, administrative and waste management. Eighty-one percent of the people employed were private wage and salary workers; 12 percent were federal, state, or local government workers; and seven percent were self-employed, not incorporated business workers.¹

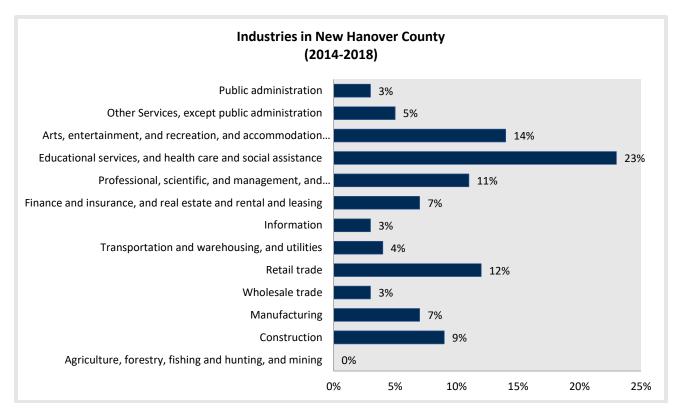
	New Hanover County Top 10 Employers: 4th Quarter 2017 ⁸						
Rank	Company	Industry	Classification	# of Employees			
1	New Hanover Regional Medical Center	Health Care and Social Assistance	Public Sector	1000+			
2	New Hanover County School Systems	Educational Services	Public Sector	1000+			
3	University Of North Carolina At Wil	Educational Services	Public Sector	1000+			
4	PPD Development	Professional, Scientific, and Technical Services	Private Sector	1000+			
5	County Of New Hanover	Public Administration	Public Sector	1000+			
6	Cape Fear Community College	Educational Services	Public Sector	1000+			
7	Cellco Partnership	Information	Private Sector	1000+			
8	City Of Wilmington NC	Public Administration	Public Sector	1000+			
9	Wal-Mart Associates Inc.	Retail Trade	Private Sector	500-999			
10	Corning Incorporated	Manufacturing	Private Sector	500-999			

Travel to Work: Eighty-two percent of commuters in New Hanover County workers drove to work alone in 2014-2018, while eight percent carpooled, one percent took public transportation, and four percent used other means. The remaining seven percent worked at home. Among those who commuted to work, it took them on average about 20 minutes.¹

Unemployment: In December 2017, New Hanover County's unemployment rate was 3.9 percent with 4,596 people who were unemployed. Beginning in January 2017, New Hanover County continues to have lower unemployment rates compared to the 2016 year.

Unemployment Rate for New Hanover County and North Carolina January 2016 - December 20178						
Month	2016 New	2016 North	2017 New	2017 North		
	Hanover	Carolina	Hanover	Carolina		
January	5.30%	5.50%	4.90%	5.20%		
February	5.10%	5.30%	4.60%	5%		
March	4.80%	5.30%	4.60%	4.50%		
April	4.40%	4.80%	3.70%	4.10%		
May	4.30%	4.80%	3.80%	4.30%		
June	4.80%	5.20%	4.10%	4.50%		
July	4.90%	5.30%	4.20%	4.70%		
August	4.90%	5.20%	4.30%	4.70%		
September	4.60%	5%	3.70%	4.10%		
October	4.60%	5.10%	3.80%	4.10%		
November	4.50%	4.90%	4%	4.30%		
December	4.50%	4.80%	3.90%	4.10%		

New Hanover County's 2017 unemployment rate continues to remain below North Carolina's rate. September 2017 unemployment rate for New Hanover County was 3.7 percent compared to the state's rate of 4.3 percent.



Industries: In 2014-2018, the top two leading industries for the employed population (16 years and older) in New Hanover County were the educational services, health care, and social assistance, (23%) and the arts, entertainment, recreation, accommodation, and food services (14%).¹

CHAPTER 5: COMMUNITY CONCERNS & PRIORITIES

Prioritization Session

The top 5 priority health issues as identified by the 2017-2018 New Hanover County Public Health CHA, in order, are: drug misuse, chronic disease, mental health, environmental health exposure, and obesity. The CHA Team used the nominal group technique to narrow down the community priorities, to three areas of focus. In this technique each person identified what they believed priorities should be utilizing secondary data and ranking the magnitude, seriousness of consequences and feasibility of correcting on a scale of 1 (low) to 10 (high). The definition of each of these is provided below.

- Magnitude: How many persons does the problem affect, either actually or potentially?
- Seriousness of Consequences: What degree of disability or death occurs because of the problem? What are the potential burdens to the community, such as economic or social burden?
- Feasibility of Correcting: Is the problem amiable to interventions (i.e., is the intervention feasible scientifically as well as acceptable to the community)? What technology, knowledge, or resources are necessary to effect a change? Is the problem preventable?

After each participant scored their health topic from 1-10 for each magnitude, seriousness and feasibility category. The scores were averaged and the top 3 selected.

Nominal Group Technique for Prioritization				
Health Priority	Average	Rank		
Chronic Disease	23.3	1		
Drug Misuse	22.5	2		
Environmental Health Exposure	22.2	3		
Mental Health	21.2	4		
Obesity	19.8	5		

Next Steps

The CHA Team worked with various community partners to develop a strategic plan for addressing the top three priority health issues. Strategic Planning is a systemic process used to set priorities, focus time and resources and strengthen operations to ensure the organization and external stakeholders are working towards common goals. This strategic plan will be the guiding framework for the next four years until another community health assessment is conducted to determine new priorities if needed. During the years the CHA is not conducted, a State of the County Health Report (SOTCH) is compiled to report the progress made toward improving health outcomes for each of the priority areas chosen. Strategic objectives and outcomes were developed with the overall goal of increasing Public Health Protection, strengthening strategic leadership and partnerships and empowering the community. For the final version of the New Hanover County Public Health Strategic Plan, please see Appendix B.

CHAPTER 6: PREVENTION & HEALTH PROMOTION

The following resources are specific to the top three health priorities identified in the CHA. This is not an exhaustive list of resources in New Hanover County. For a more up-to-date listing, please visit the NC Care 360 Resource page at https://nccare360.org/.

- Chronic Disease
- Drug Misuse
- Environmental Health Exposure

Chronic Disease

New Hanover County Public Health *Breastfeeding Peer Counselor Program* is evidence-based intervention that increases both initiation and duration of breastfeeding; especially in vulnerable populations already at risk for the diseases that breastfeeding is known to reduce: obesity, diabetes, asthma as well as certain cancers in both children and their mothers. Peer Counselors are women from the target population who have breastfed their own infants and are especially trained to support prenatal and breastfeeding women and their families. They give basic breastfeeding information, following up with mothers until they wean their babies. They also refer mothers to other health care providers when needed.

New Hanover County Public Health *Health Promotion Division* works to collaborate with partners throughout the community, such as worksites, schools, faith communities, businesses, families, and individuals to promote healthy lifestyles and wellness rich environments. The goal is to encourage policy and environmental changes that will support increased physical activity, healthy eating, disease prevention, injury prevention, and tobacco use prevention/cessation in the community. This program synthesizes local and state health data to create the quarterly, annual reports for the health department as well as the state required State of the County Health Report (SOTCH) and the Community Health Assessment (CHA).

Feast Down East (FDE) is a non-profit organization working to support and grow the local food system in Southeastern North Carolina. FDE operates the Local Motive Mobile Farmers Market Program which provides access to affordable, healthy, local foods to food insecure communities. In partnership with Wilmington Housing Authority (WHA), the Mobile Market operates as a pop-up market year round at all ten WHA locations and accepts, SNAP/EBT, debit/credit cards and cash as forms of payment. The Mobile Market also participates in the Fresh Bucks program for SNAP/EBT recipients. SNAP recipients will receive a dollar-for-dollar match for benefits redeemed at the Mobile Farmers Market, for up to a total of \$20 Fresh Bucks.

Nutrition/Cooking Education: Access is one piece of the puzzle. Knowing how to incorporate fresh seasonal produce into your diet is another. FDE, through the Local Motive Mobile Farmers Market initiative, offers nutrition and health-based education through collaboration with New Hanover County Public Health, New Hanover Regional Medical Center, NC State Cooperative Extension and the University of North Carolina Wilmington.

The *Healthy Communities Program* through the NC Division of Public Health provides funding for New Hanover County Public Health to address community-specific needs that relate to 1) creating policy and environmental changes that address healthy eating, 2) increase educational and behavioral change programs addressing obesity, diabetes and/or cancer prevention and 3) implement media and

messaging campaigns that increase awareness of the risks of opioid poisoning, signs and symptoms overdose, where to access and how to administer naloxone in the event of an overdose.

Drug Misuse

The *Opioid Navigation Website* was created by the New Hanover County's Health Promotion Division to provide important information and resources to help fight the opioid crisis.

The *Community Partners Coalition* formed in 2016 after Castlight Health published a study naming Wilmington as the top city in the nation for opioid abuse, SEAHEC and the Southeastern North Carolina Regional Health Collaborative began a collaborative regional opioid harm reduction initiative. After engaging the State Health Director, Dr. Randall Williams, in conversation about the opioid epidemic in the region, a regional "call to action," was held which harnessed this visit to the region as a platform to bring together stakeholders for a day of conversation and collaboration. The day served as an opportunity for about 100 regional stakeholders to break down the traditional sectored silos, to better understand what actions are currently being done to address this epidemic in our region, as well as define what gaps exist. Stakeholders present included: clinicians, pharmacists, law enforcement, public health, grassroots advocacy groups, higher education and school system leaders, regional healthcare leaders, mental health and substance abuse professionals, the department of social services, first responders, faith-based community leaders, and local delegation.

Law Enforcement Assisted Diversion (LEAD) is founded on the idea that narcotics use is more often a public health problem than a criminal justice problem. Police exercise discretionary authority to redirect individuals to a community-based, harm-reduction intervention for minor narcotics related violations. In lieu of the normal criminal justice system cycle — booking, detention, prosecution, conviction, incarceration — individuals, 18 years or older, are instead referred into an intensive case-management program where they receive a wide range of support services, often including transitional and permanent housing and/or drug treatment.

- Social Referral: Individuals who are seeking treatment for narcotics addiction.
- Criminal Referral: Individuals who have committed a minor criminal offense and have been identified as an abuser of controlled substances.

University of North Carolina –Wilmington (UNCW's) *CROSSROADS High School Drug Prevention Program* provides high school students and staff with a highly interactive, evidence-based approach to preventing drug use.

The mission of the *Safe Kids Cape Fear Coalition* is to reduce the number of unintentional deaths and injury to children ages 0-19 years in New Hanover, Brunswick and Pender County through prevention, intervention and education. Safe Kids organizes at least 52 events a year regarding injury prevention topics highlighting one of the five focus areas: Vehicle (Traffic) Safety, Fire Safety, Poison Prevention, Bike/Helmet Safety, and Water Safety for a wide community audience.

New Hanover County *Child Fatality Prevention Team's (NHC CFPT)* mission is to promote the development of a community wide approach to understanding the causes of childhood fatalities, identify the deficiencies in public services to children and families, and to make and carry out recommendations for change to prevent future childhood deaths.

North Carolina Harm Reduction Coalition (NCHRC) was created to reduce the harmful consequences associated with drug use, sex work and other high risk activities. Some of the programs NCHRC provides

include overdose prevention clinic, naloxone access and overdose prevention programming, corrections services train people living and residing in corrections with trainings on overdose prevention, naloxone access, harm reduction and hepatitis. They also provide referrals to drug treatment, health services, mental health services, sexual assault support agencies, domestic violence support services, hepatitis medical services, AIDS service agencies and syringe exchange.

New Hanover Regional Medical Center in collaboration with various community partners, coordinates medication disposal events twice annually in an effort to reduce the risk of misuse or accidental exposure to medications, including opioids and other prescriptions. Unwanted, unused and expired medications can be disposed at events in a safe, convenient and environmentally sound manner.

NC Tobacco Use Quitline Toll free phone number for free confidential one on one support for quitting tobacco. 1-800-QUIT NOW (1-800-784-8669)

Cape Fear Coalition *for a Drug Free Community* came together in May of 2008 as a result of the US Surgeon General's call to action for addressing underage alcohol use. The Coalition is comprised of community based organizations, businesses, schools, youth, and family members. The goal of the initiative is to reduce alcohol and substance abuse by youth in New Hanover County, NC.

Coastal Horizons Center, Inc. Referrals for NHCS students who are first-time violators of the NHC Board of Education Policies (8410) concerning substance (alcohol and other drugs) use, involve an interview to determine appropriate substance abuse services in lieu of a long-term suspension.

Wilmington Treatment Center was founded more than 30 years ago by a group of men and women whose lives were impacted by addiction, Wilmington Treatment Center has become a leading provider of quality addiction treatment. With all-inclusive care available to adults age 18 and above, their center is prepared to treat patients from the detox phase of recovery until they are ready to return home, armed with the skills and confidence needed to maintain sobriety for a lifetime.

Youth Development Specialists (YDS) provide direct substance abuse/violence prevention services to NHCS students in each traditional high school through a variety of activities. YDS often serve as club advisors for a variety of peer-led prevention initiatives such as SAVE (Students Against Violence Everywhere), Teens Against Tobacco Use and Peer Mediation.

Booze it or Looze It Media Campaign is recognized as one of the nation's most effective anti-drunk-driving campaigns, Booze It & Lose It has created increased awareness of the dangers and the consequences of drinking and driving through innovative education campaigns and extensive enforcement of impaired-driving laws. During enforcement campaigns, law enforcement agencies increase the number of saturation patrols, set up checking stations and use local news media to reach out to all drivers.

Coastal Horizons and the City of Wilmington teamed up in 2018 to fight the ongoing opioid crisis by launching a new pilot program called *Cape Fear Opiate Overdose Quick Response Team.* The goal is to intervene, educate, and ultimately, save lives. The QRT pairs addicts with first responders on the streets in hopes of getting them treatment and keeping them out of jail. The team makes contact through repeated house visits, phone calls, text messages, and other communication. Outpatient treatment includes medication, behavioral therapy and peer support.

In 2016, the *Resiliency Task Force* began with a few child and education focused non-profits began meeting to collaborate around some grant-writing efforts, focusing on 3rd grade reading outcomes. Following the First 2000 Days Summit screening of the film Resilience in February 2018, the group gained momentum, expanding to include several other New Hanover County entities and systems, and focused its efforts on addressing social determinants of health as it related to ACEs (Adverse Childhood Experiences.) Addressing ACES, or Adverse Childhood Experiences, is a rising trend in public health, as more is becoming known about how childhood traumas, both at the individual and societal levels, have a devastating impact on health outcomes later in life, including greater instances of heart disease, cancer, and COPD, and a multitude of mental health issues. Schools, communities and practitioners in various systems are working to teach and reinforce resiliency as well as combat the factors that lead to these traumatic events.

Safe and Drug Free Schools in New Hanover County Schools promotes a safe and orderly environment that supports positive youth development through the provision of Substance Abuse/Violence Prevention Services.

New Hanover County Blue Ribbon Commission on the Prevention of Youth Violence serves an area known as the Youth Enrichment Zone (YEZ), a project modeled after the Harlem Children's Zone. The goal is to transform communities one block, one area at a time by identifying, coordinating and making community resources available to reduce youth violence. Specialists within the program go door to door and help build relationships with families in the Zone, which targets high risk areas of violence and crime. The specialist connects families to necessary resources and is a family/school advocate with a regular presence in the Zone schools.

Dreams Center for Arts Education offers arts programs free of charge to economically deprived students.

New Hanover County Sheriff's deputies educate NHCS middle school students about the dangers of gangs through the *Gang Resistance and Education Training (GREAT)*, using thirteen, 45-minute sessions with topics including gang awareness, anger management, and resisting peer pressure.

The *Department of Social Services* provides child and adult protective services, foster care and adoption services to New Hanover County citizens.

School Health Advisory Council (SHAC). This Council engages school staff and community members in the implementation of a coordinated school health program as described in NHC Board of Education Policy 8620

Smart Start of New Hanover County A child has about 2,000 days between birth and the start of Kindergarten. During this time in a child's life, the brain grows to 90% of its adult size and children are eager and ready to learn; therefore, their access to high quality health care and learning environments matters greatly. Smart Start collaborates with statewide and local networks of community services on behalf of children and their families in order to ensure that every child has the opportunity to enter school prepared for success.

New Hanover Regional Medical Center Trauma Services and Injury Prevention Program provide outreach events in efforts to educate residents on ways to prevent injuries. As part of the Trauma Center's mission, the staff reaches out to the community to provide education on preventing injuries or

minimizing their seriousness. Community based initiatives include Trauma Survivors Support Group, Stop the Bleed and the Matter of Balance program.

Environmental Health Exposure

New Hanover County Public Health and New Hanover County Schools provide *School Health Nurses* to provide health education and management of chronic conditions, including, asthma in the schools.

New Hanover County Public Health *Community Health* offers lead testing and education for children up to 6 years of age, follow up testing, and home and environment testing, all free of charge.

North Carolina General Statute 87-97 requires counties to have programs for permitting, inspecting, and testing of private drinking water wells, which are constructed, repaired, or abandoned. New Hanover County Public Health *Environmental Health Division* enforces state statutes and rules and receives technical and legal assistance from the States' Environmental Health Section. The program is designed to protect human health and groundwater quality by ensuring private drinking water wells are properly constructed, repaired, and abandoned. Public Health conducts site evaluations, grouting inspections, and well head inspections.

Since January 2, 2010, *New Hanover County Public Health* has enforced the North Carolina's Smoke-Free Restaurants and Bars Law under N.C. General Statute 130A-497.

New Hanover County Public Health *Vector Control* uses a variety of prevention and control methods to reduce mosquito populations, including mosquito prevention education, larviciding to target larvae and breeding sites, and ultra-low volume mosquito spraying with EPA-registered pesticide.

REFERENCES

- 1. United States Census Bureau. (2019). *Quick Facts North Carolina*. Retrieved from https://www.census.gov/quickfacts
- 2. New Hanover Regional Medical Center. (2018). *Northside Health and Well-being Improvement Program Report.*
- 3. Johnson, R. W. (2017). *North Carolina State Report*. Retrieved from County Health Rankings & Roadmaps: https://www.countyhealthrankings.org/app/north-carolina/2017/rankings/new-hanover/county/outcomes/overall/snapshot
- 4. DHHS, N. (2019, February). *North Carolina County Trends Reports*. Retrieved from State Center for Health Statistics: https://schs.dph.ncdhhs.gov/data/keyindicators/reports/NewHanover.pdf
- 5. Investigation, N. S. (2018). *Annual Summary Report*. Retrieved from NC State Bureau of Investigation Crime Reporting: http://crimereporting.ncsbi.gov/Reports.aspx
- 6. Instruction, N. D. (2018). *Data & Reports: Dropout and Discipline Annual Reports Data*. Retrieved from NC Department of Public Instruction: https://www.dpi.nc.gov/data-reports/dropout-and-discipline-data/discipline-alp-and-dropout-annual-reports#2017-18
- 7. Airport, W. I. (n.d.). *Airport Documents & RFPs*. Retrieved from ILM: https://flyilm.com/airport-documents/
- 8. Commerce, N. D. (2019). *Quarterly Census of Employment and Wages (QCEW) Largest Employers*. Retrieved from NC Department of Commerce Labor & Economic Analysis: https://d4.nccommerce.com/QCEWLargestEmployers.aspx

APPENDIX A

New Hanover County Community Health Survey 2018

Administered by New Hanover County Public Health Department in partnership with the University of North Carolina Wilmington Department of Nursing and New Hanover Regional Medical Center.





